



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/077,385 | 02/15/2002 | Roy James Askeland | 14531.132 | 5665 |

22913 7590 07/15/2003

WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER &
SEELEY)

60 EAST SOUTH TEMPLE
1000 EAGLE GATE TOWER
SALT LAKE CITY, UT 84111

EXAMINER

DATSKOVSKIY, MICHAEL V

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/077,385

Applicant(s)

ASKELAND ET AL.

Examiner

Michael Datskovsky

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 15-19 and 21-25 is/are allowed.
- 6) ☐ Claim(s) 1-7, 9, 20, 26 and 28-37 is/are rejected.
- 7) ☐ Claim(s) 8, 10, 11, 18 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 18 is objected to because of the following informalities: Claim recites the limitation "the means for drawing" in the line 1. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 9 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specification does not provide any explanation how one hole in an EMI cover (claim 9) or a plurality of holes in said cover (claim 20) can be configured or adapted to suppress electromagnetic energy generated by a processor. From examiner's point of view a hole can only leak EMI.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 29-35 are rejected under 35 U.S.C. 102(e) as being anticipated by

Bologna et al.

Bologna et al teach a computing device 30, comprising a housing having a height being the smallest dimension of said housing, said housing encasing a power supply, a processor, a motherboard, a hard drive assembly and a baffle 60; and a fan 54 mounted on a support structure 52 within said housing, wherein said support structure . Bologna et al teach furthermore said fan drawing air over at least power supply assembly (col.3, lines 61-63) and said baffle 60, the fan 52 being greater in diameter than the height of said housing (see Fig.3). Also examiner has to point out, that applicant has not provided any reasonable explanation in the specification, why the size of the diameter of said fan by being greater than the height of the housing eliminate (or even decreasing) an acoustic noise generated by said fan. In this situation choosing the capacity (range or size) of said fan is inherently the designer choice obvious to one ordinary skilled in the art.

Claim Rejections - 35 USC § 103

6. Claims 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bologna et al.

Bologna et al teach all the limitations of the claims except said fan being configured to generate acoustic noise of between 28 dB to about 35 dB (claim 36), or between 25 dB to about 30 dB (claim 37). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a fan having such acoustic characteristics, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. It is also necessary to point out that according to the specification's statement on page 15, lines 14-16, the noise is supposed to be eliminated (which means: not to exist at all).

7. Claims 1-6, 12-14, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al in view of Bologna et al.

The following rejection is base on the mentioned above assumption that without providing any reasonable explanation in the specification, why the size of the diameter of said fan by being greater than the height of the housing eliminates (or even decreasing) an acoustic noise generated by said fan, choosing the capacity (range or size) of said fan is a designer choice. It is necessary to point out that from technical point of view it is impossible to eliminate the acoustic noise of a cooling fan by only

Art Unit: 2835

choosing its diameter greater than the height of the computer housing. There is a plurality of criterias, which should be taken in the consideration simultaneously: A design of a fan; an air flow rate; an air pressure; a design of the surrounding structure; e. g.

Liu et al teach a computer processor 22 cooled by a fan 29 mounted on a support structure 54 also providing an EMI shielding for said processor. Liu et al do not teach said fan having a diameter greater than a height of a computer housing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a fan having such dimensions, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Examiner has to point out that dependent claims 2-6 and 12-14 claim structural limitations, which are typical to a standard computer (desktops or servers). Thus, for example, Bologna et al teach a computing device 30, comprising a housing having a height being the smallest dimension of said housing, said housing encasing a power supply, a processor, a motherboard, a hard drive assembly and a baffle 60; and a fan 54 mounted on a support structure 52 within said housing, wherein said support structure. Bologna et al teach furthermore said fan drawing air over at least power supply assembly (col.3, lines 61-63) and said baffle 60. Bologna et al teach furthermore said computing device housing comprises a cover 76 and a carriage 34, said cover and said carriage comprising a plurality of vents. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a structure by Liu et al in the

Art Unit: 2835

computing device such as presented by Bologna et al in order to create an EMI protection for a processor. Regarding to the claim 5: The official notes is taken that computer cooling fans consisting a ball bearing or a sleeve bearing are well known in the art. See for example Lai (US Patent 6,400,049). Regarding to the claims 6 and 28: The functional recitations that said fan exhibits a low acoustic signature (claim 6), or that a fan is selected based upon certain criteria (claim 28) has not been given patentable weight because they are narrative in form. In order to be given patentable weight a functional recitation must be expressed as a "means" for performing the special function, as set forth in 35 USC §112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Fuller, 1929 C.D. 172; 388 O.G. 279.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al and Bologna et al as applied to claim 1 above, and further in view of Alfano et al. Liu et al and Bologna et al teach all the limitation of the claim except said fan is a variable speed fan. Alfano et al teach a thermal management system, comprising a variable speed cooling fan 130. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a variable speed cooling fan as it is shown by Alfano et al in the device by Liu et al and Bologna et al in order to save power and decrease noise in a computing device.

Allowable Subject Matter

9. Claims 15-19, 21-5 and 27 are allowed.

10. Claims 8, 10-11 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: A computing device comprising a combination of parts including a smart card and a fan drawing air from outside a computer housing and over said smart card, wherein said fan is mounted on a support structure, which also provides an EMI protection for a processor (claims 15-25). A computing device comprising a combination of parts claimed in the claim 1 and further including a fan support structure comprising a plurality of holes (claims 8-11 and 27).

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tucker et al (US Patent 6,362,977); Noble (US Patent 6,064,571); Strickler (US Patent 6,163,454); Curlee et al (US Patent 6,351,380); Chan (US Patent 5,838,551) and Sasaki (US Patent 6,587,337).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Datskovsky whose telephone number is (703) 306-4535. The examiner can normally be reached on Mn - Fry 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (703) 308-4815. The fax phone

Art Unit: 2835

numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Patent Examiner

Michael Datskovsky

A handwritten signature in black ink, appearing to read "Michael Datskovsky", written in a cursive style.

July 3, 2003